IN THE CLAIMS

Claims 1-6, have been amended, claims 7-23 have been canceled and claims 24-29 have been added.

LISTING OF CLAIMS:

1. (currently amended) A monitoring device comprising a supporting member ~~(9)~~, a light emitter ~~(5)~~, a receiver ~~(6)~~ for the light emitted from the emitter ~~of the source~~, and an arm having opposite ends with the light emitter and receiver mounted at each opposite end of the arm, said monitoring device further comprising ~~characterized in that it further comprises an arm (8) with two opposite ends on which the source (5) and the receiver (6) are mounted, and a double and~~ an adjustable joint ~~(13, 14)~~ connecting the arm to the supporting member to allow for rotation of ~~through which~~ the arm with respect to the supporting member about ~~is mounted on the support, the double joint comprising~~ two axes of rotation (y, z) perpendicular to each other and to a main path (x) of ~~the~~ light emitted in the form of a light beam from said ~~between the~~ emitter for illuminating a scene to be monitored with one of said two axes of rotation intersecting said light beam ~~and the receiver~~.

2. (currently amended) The monitoring device according to claim 1, wherein said main path is a part of the beam which has a greater cross-section than other parts

of the beam ~~characterized in that it comprises a support (12) for a tool (4) carrying out an operation monitored by the device, on the supporting member (9)~~.

3. (Currently Amended) The monitoring device according to claim 2, wherein the light is monochromatic and a filter is provided on the beam between the main path and the receiver of light, the filter being transparent to light and opaque to other optical wavelengths, ~~1 or 2, characterized in that the arm is curved between the ends~~.

4. (Currently Amended) The monitoring device according to claim 2, comprising a converging lens provided between the main path and the receiver of light and a pinhole place at a focus of the light, said focus being created by the converging lens ~~any of claims 1 to 3 claim 1, characterized in that the emitter and the receiver are provided with right-angle reflecting devices (20, 21, 26, 27) for light and positioned parallel to each other and perpendicularly to the main path (7) of the light~~.

5. (Currently Amended) The monitoring device according to claim 3 comprising a converging lens provided between the filter and the receiver of light and a pinhole place at a focus of the light, said focus being created by the converging lens ~~1, characterized in that the light is monochromatic, and the receiver comprises a filter (30) transparent to the light and opaque to other optical wavelengths, a converging lens (25) and pinhole (28) placed at a focus of the light created by the lens~~.

6. (Currently Amended) The monitoring device according to claim ~~1~~, ~~characterized in that the light emitter is a light-emitting diode~~ 2, comprising an

expanding lens which widens the cross-section of the beam between the light emitter and the main path.

7. (cancelled)

8. (cancelled)

9. (cancelled)

10. (cancelled)

11. (cancelled)

12. (cancelled)

13. (cancelled)

14. (cancelled)

15. (cancelled)

16. (cancelled)

17. (cancelled)

18. (cancelled)

19. (cancelled)

20. (cancelled)

21. (cancelled)

22. (cancelled)

23. (cancelled)

24. (new) The monitoring device according to claim 1, wherein the support member comprises a tool separating the scene.

25. (new) the monitoring device according to claim 1, comprising one or more motors for oscillating the arm about the two axes.

26. (new) A method for monitoring a scene, using a monitoring device comprising a supporting member, a light emitter, a receiver of light emitted by the light emitter, an arm having opposite ends with the light emitter and receiver mounted at each opposite end of the arm and an adjustable joint connecting the arm to the support member to allow for rotation of the arm with respect to the support member about two axes of rotation, comprising the steps of:

emitting light from said emitter as a beam having a main path of light intersecting at least one of the two axes of rotation at an angle perpendicular thereto;

locating the device so that the main path is tangent to the scene; and

imparting oscillations to the arm about the two axes of rotation and

repeatedly measuring parameters of the scene.

27. (new) A method according to claim 26, wherein the parameters include a width and a depth for a circular connection with the main path being tangent to the connection.

28. (new) A method according to claim 27, wherein the aiming direction of the main path is continuously adjusted according to measurements of the parameters during the oscillations.

29. (new) A method according to claim 27 or 28, wherein the scene is a scene of a welding connection.